A NOMENCLATURAL NOTE ON

BIDARIA INODORA AND B. TINGENS (APOCYNACEAE: ASCLEPIADOIDEAE)

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ABSTRACT

An investigation of the nomenclature of Bidaria inodora (Lour.) Decne., an accepted name in the Flora of China, and of B. tingens (Roxb.) Decne., an accepted name in the Fascicles of Flora of India, reveals that B. inodora is the correct name for this taxon to be used within the genus Bidaria (Endl.) Decne.

RESUMEN

Una investigación de la nomenclatura de Bidaria inodora (Lour.) Decne., un nombre aceptado en la Flora of China, y de B. tingens (Roxb.) Decne., un nombre aceptado en los Fascicles of Flora of India, revela que B. inodora es el nombre correcto para este taxon para ser usado en el género Bidaria (Endl.) Decne.

In their treatment of Asclepiadaceae of India, Jagtap and Singh (1999) listed *Bidaria tingens* (Roxb.) Decne. (based on *Asclepias tingens* Roxb.) as an accepted name with *Cynanchum inodorum* Lour. as a synonym. In contrast, the Asclepiadaceae treatment in *Flora of China* (Li et al. 1995) has *Gymnema inodorum* (Lour.) Decne. (based on *C. inodorum*) as the accepted name with *B. tingens* as a synonym. Although the treatments of the Chinese and Indian floras differ in their taxonomy for this species, their different usage of epithets for the accepted name posed a puzzle and led to the following study.

Decaisne (1844) elevated *Gymnema* [unranked] b. *Bidaria* Endl. to the rank of a genus as *Bidaria* (Endl.) Decne. Within his new genus, Decaisne included five species [including *B. inodora* (Lour.) Decne. and *B. tingens* (Roxb.) Decne.]. Although he did not cite a type species for his new genus, it is automatically typified by *B. tingens*. This is because, for his infrageneric name *Gymnema* b. *Bidaria*, the basionym of *Bidaria*, Endlicher (1838) included a single species, i.e., *Asclepias tingens* Roxb., which is the automatic type species of the preceding infrageneric name.

The type species name *Bidaria tingens* is not the oldest within the genus. The priority of *B. tingens*, which is based on *Asclepias tingens* starts from 1815. The priority of *Cynanchum inodorum*, however, starts from 1790. Therefore, if *A. tingens* and *C. inodorum* are conspecific, then the correct name for this complex in the genus *Bidaria* or *Gymnema* must employ the epithet *inodora*. It is evident that the *Flora of China* (Li et al. 1995) is correct in its usage of *G. inodora*, whereas Jagtap and Singh (1999) erred in their usage of *B. tingens* as the accepted name. It is speculated here that Jagtap and Singh (1999) might have erroneously assumed that the type species name has priority over the other names. Whatever may be the reason, their error must be corrected, and the correct name within the genus *Bidaria* is *B. inodora*.

Bidaria (Endl.) Decne. in A.P. de Candolle, Prodr. 8:623. 1844. BASIONYM: Gymnema [unranked] b. Bidaria Endl., Gen. Pl. 595. 1838. Type species: B. tingens (Roxb.) Decne. (Asclepias tingens Roxb.).

Bidaria inodora (Lour.) Decne. in A.P. de Candolle & A.L.P.P. de Candolle, Prodr. 8:624. 1844. Cynanchum inodorum Lour., Fl. Cochin. 166. 1790. Gymnema inodorum (Lour.) Decne. in A.P. de Candolle & A.L.P.P. de Candolle, Prodr. 8:551. 1844; B. Li et al. in Fl. China 16:240, fig. 234. 1995. Asclepias tingens Roxb. (Hort. Beng. 21. 1814, nom. nud.) Pl. Coromandel 3(2):34, t. 239. 1815. Gymnema tingens (Roxb.) Spreng., Syst. Veg. (ed. 16) 1:844. 1824 ("1825"); Wight & Arn. in R. Wight, Contr. Bot. India 45. 1834; Hook. f., Fl. Brit. India 4:31. 1883. Bidaria tingens (Roxb.) Decne. in A.P. de Candolle & A.L.P.P. de Candolle, Prodr. 8:623. 1844; A.P. Jagtap & N.P. Singh, Fas. Fl. India 24:69. 1999.

The genus *Bidaria* is closely related to *Gymnema* but differs from it in having bifarous pubescent internodes and unpaired and non-bifid umbellate cymes. Additionally, the shape of the corolla and corona are different in both genera. Although Hooker (1883) treated *Bidaria* as a synonym of *Gymnema* R. Br., Huber (1973) reinstated the genus *Bidaria* which was further supported by Jagtap and Singh (1999).

As summarized above, besides making the new combination *Bidaria inodora*, Decaisne (1844) also made the new combination *Gymnema tingens*. It is uncertain whether Decaisne made the two new combinations deliberately or inadvertently. Whatever may be the fact, both new combinations were validly made and are treated as alternative names (see Melbourne Code Art. 36.2; McNeill et al. 2012).

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REFERENCES

Decaisne, J. 1844. Asclepiadeae. In: A.P. De Candolle and A.L.P.P. de Candolle, eds. Prodromus systematis naturalis regni vegetabilis, sive enumeratio contracta ordinum generum specierumque plantarum huc usque cognitarium, juxta methodi naturalis, normas digesta. Paris, France. Pp. 490–665.

ENDLICHER, S.F.L. 1836-41. Genera plantarum secundum ordines naturales disposita. Vindobonae.

HOOKER, J.D. 1883-85. The flora of British India. London, UK. 4:1-780.

Huber, H. 1973. Asclepiadaceae. In: B.A. Abeywickrama, ed. A revised handbook to the flora of Ceylon. Peradeniya, Sri Lanka. 1:31–57.

JAGTAP, A.P. AND N.P. SINGH. 1999. Fascicles of Flora of India (Asclepiadaceae). Botanical Survey of India, Calcutta, India. 24:1–285.

Li, B., M.G. Gilbert, AND W.D. Stevens. 1995. Asclepiadaceae. In: Z.Y. Wu and H. Raven, eds. Flora of China. Beijing, China and St. Louis, Missouri. 16:189–270.

McNeill, J., F.R. Barrie, W.R. Buck, V. Demoulin, W. Greuter, D.L. Hawksworth, P.S. Herendeen, S. Knapp, K. Marhold, J. Prado, W.F. Prud'homme van Reine, G.F. Smith, J.H. Wiersema, and N.J. Turland (eds. & compilers). 2012. International Code of Nomenclature for algae, fungi, and plants (Melbourne Code) adopted by the Eighteenth International Botanical Congress Melbourne, Australia, July 2011. Regnum Vegetabile 154.